



# Casio E-A400 Electronic Dictionary Teardown

The teardown of the CASIO E-A400 Electronic Dictionary

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## INTRODUCTION

What's in the dictionary? What chips does it use? Can we get any hits to hack the dictionary?

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### TOOLS:

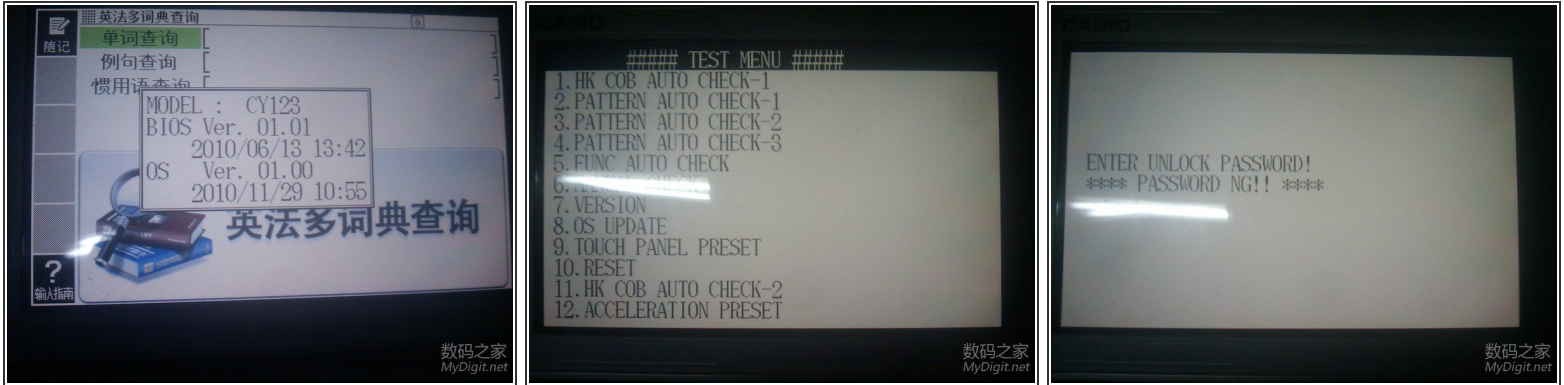
- [Phillips #1 Screwdriver](#) (1)
  - [iFixit Opening Tools](#) (1)
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## Step 1 — Casio E-A400 Electronic Dictionary Teardown



- The CASIO E-A400 dictionary is a French English Chinese dictionary sold in China.
- We don't know what the OS it is using. We can't add more add-on dictionary to it. We want to know how to hack it.

## Step 2



- This is the method to enter the hidden TEST MENU. Power off dictionary Hold the go-back key (for newer modules it is near the four navigation keys older modules it is on the left), the page up key and the power key for maybe 5 seconds until it beeps and the screen light on and popup a window shows the Model and the BIOS Ver Release the three keys and press the right navigation key two times then press enter key then it will beep two times and enter the hidden TEST MENU
- If the dictionary is a newer module like E-A400 (released on 2010 in China) or E-B400 (released on 2011 in China) there is a password when you want to enter the MANUAL CHECK > SERVICE MENU. If it is an older module like E-SF300 (released on 2009 in China) there is no password when you want to enter the SERVICE MENU. The SERVICE MENU has tools that can backup the system file to the SD card. But now no one knows what the password is. Does anyone have any ideas about how to hacking the password?



### Step 3



- Remove the screws in the back with a Phillips #1 screwdriver.
- Insert a plastic opening tool to open the keyboard panel
- Remove screws in the PCB and carefully remove the PCB from the back panel

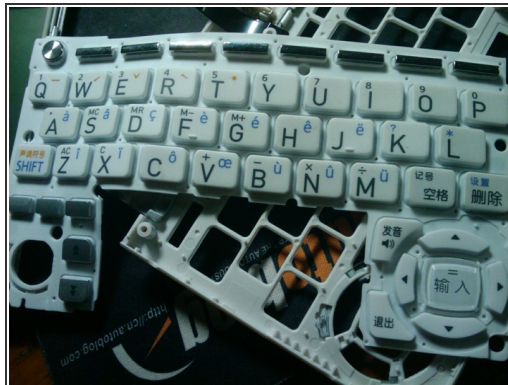
### Step 4



- This is the back panel

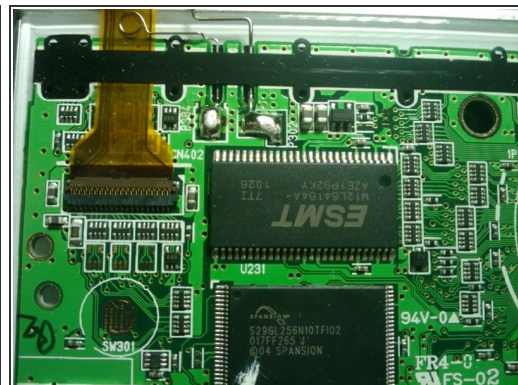
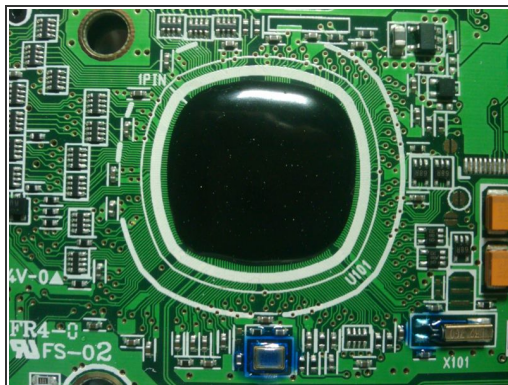
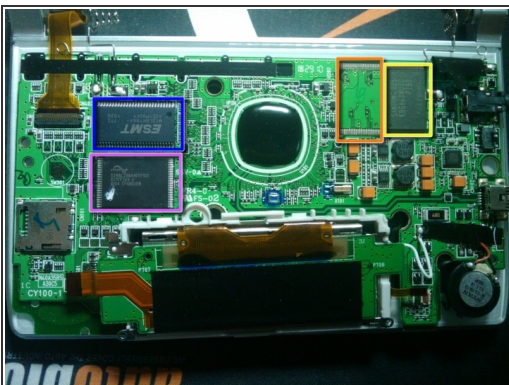


## Step 5



- This is the keyboard panel with soft keyboard

## Step 6



- The mainboard
- SPANSION S29GL256N 256Mbit
- ESMT M12L64164A 64Mbit
- SAMSUNG K9GAG08U0D 2GB MLC
- There is a space for another Flash Chip

## Step 7



- The small display panel

## Step 8



- The keyboard PCB and the mainboard PCB is pretty hard to seperate.



## Step 9



- Insert a plastic opening tool to open the display panel

## Step 10



- Use a + 2.0 mm screwdriver to remove the two back display panel.



## Step 11



- The PCB of the screen.

To reassemble your device, follow these instructions in reverse order.

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